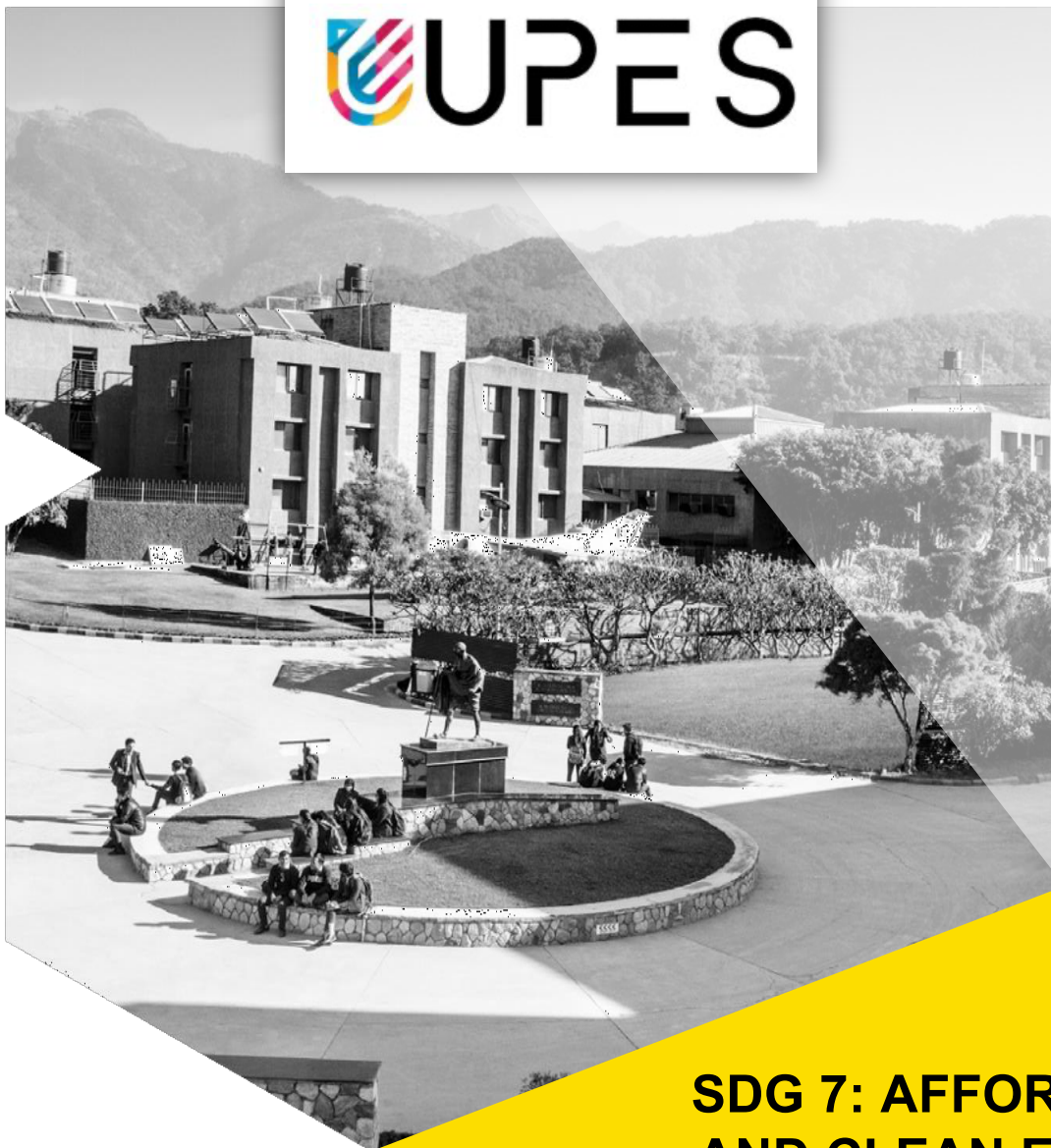




SUSTAINABLE DEVELOPMENT GOALS



SDG 7: AFFORDABLE AND CLEAN ENERGY

2025

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UPES's Industry-Focused Energy Services and Clean Energy Initiatives

Energy Audits and Efficiency Advisory Services

UPES actively provides **energy efficiency consulting and audit services** to industry through its faculty experts and centers. For example, the university's faculty include certified energy auditors who have conducted hundreds of industrial energy audits and assessments in sectors like steel, fertilizers, pulp & paper, and textiles upes.ac.in. One UPES professor (Dr. Yogesh C. Gupta) has led projects improving energy efficiency for local SMEs – he executed a UNIDO-funded project to enhance productivity of pulp and paper small industries in Uttar Pradesh and Uttarakhand by **improving energy efficiency and processes** upes.ac.in. Such projects directly advise factories on cutting energy use and adopting cleaner technologies. UPES experts also develop strategic energy plans: currently, a GIZ-funded initiative at UPES is crafting a 30-year “**Multi-Sectoral Energy Action Plan**” and renewable energy roadmap for the state of Uttarakhand upes.ac.in – an advisory service that will guide regional industries and policymakers toward **sustainable energy** transitions. Through these consulting engagements and audits, UPES provides hands-on guidance to industries on **reducing energy consumption, improving operations, and adopting clean energy solutions**.

Research Collaboration and Clean Energy Innovation with Industry

UPES emphasizes **industry-academia collaboration** in clean energy research, often partnering with companies on innovation and pilot projects. The university's Centre for Alternate Energy Research (CAER) actively seeks partnerships with industry and government bodies to develop alternative fuels and renewable technologies upes.ac.in upes.ac.in. A notable case is a **joint project on electric vehicle batteries**: in 2022, UPES's interdisciplinary research center organized a workshop on “Advances in materials and battery technology for EVs” as part of a project sponsored by an industry partner (Ornate Solar Pvt. Ltd.) upes.ac.in. This industry-funded project involved company experts (e.g. directors from Ornate Solar and Inverted Energy) working with UPES researchers upes.ac.in – a collaboration aimed at innovating **solid-state battery applications** for clean transportation. UPES also builds networks via events that spur technology transfer. For instance, the university's **Sustainability Fair 2022** featured an industry-academia conclave and exhibitions by regional companies working on green energy, sustainable materials, and pollution control garhwalpost.in. These platforms enable companies to learn about new research and for UPES to pilot technologies in real-world settings. In summary, UPES actively collaborates with industry on **clean energy innovations** – from renewable fuels to energy storage – and helps transfer these technologies through joint projects and sponsored research upes.ac.in upes.ac.in.

Workshops, Training Programs, and Certifications for Industry Professionals

UPES extends its expertise to **train industry professionals** and upskill the energy workforce through various programs. The university's faculty frequently deliver specialized workshops

and capacity-building sessions for companies and utilities. For example, UPES experts have conducted 50+ technical training sessions for professionals from corporations, public sector units, and government agencies to build skills in energy conservation and sustainability upes.ac.in. One faculty member has even provided electric vehicle and battery storage training to engineers at Tata Motors upes.ac.in. UPES also runs formal continuing education: its digital arm, UPES Online (UPES ON), partnered with L&T EduTech in 2024 to launch **post-graduate certificate programs** in *Industrial Safety* and *Renewable Energy* for working professionals financialexpress.com. These 10-month programs, taught with industry experts, combine academic rigor with industrial site visits and projects to equip professionals with practical clean energy and safety skills financialexpress.com financialexpress.com. Moreover, in 2024 UPES introduced an Executive Education program on ESG, Sustainability and Impact – a short course (delivered with Mahindra University and Aspire Impact) designed to train mid-career executives to lead **Net Zero and clean energy transitions** in their organizations prnewswire.com prnewswire.com. UPES also hosts open workshops and fairs: the **Sustainability Fair 2022** provided hands-on training sessions, panel discussions, and symposiums with experts for participants including regional industry representatives garhwalpost.in. Through these workshops, certification courses, and industry-focused training programs, UPES is directly **upskilling local industry personnel in energy management, sustainable operations, and renewable energy adoption**.

Service Models: Free, Funded, or Fee-Based

UPES's services to industry are offered under various models – some are free or subsidized through government grants, while others are fee-based consulting or education programs. **Consultancy projects and audits** are often funded by external agencies or industry contracts. For instance, the energy efficiency improvement project for SMEs was funded by UNIDO upes.ac.in, and the ongoing Uttarakhand energy action plan is supported by GIZ upes.ac.in – meaning the beneficiary industries receive expert advice at no direct cost (subsidized by development grants). Similarly, outreach workshops for the community and local businesses are usually free of charge; UPES conducts these as part of its social mandate. The university's SDG report notes that it organizes community outreach programs educating locals on clean energy benefits upes.ac.in, indicating these sessions are provided as a public service. Large knowledge events are often **sponsor-funded**: Sustainability Fair 2022, for example, was funded by sponsors like Punjab National Bank and DST-SERB garhwalpost.in, allowing industry participants and the public to attend without fees. On the other hand, **formal training programs and certificates** for professionals are typically paid or for-credit offerings. The UPES–L&T Edutech post-grad programs and executive courses are tuition-based (as they confer certification or advanced training) financialexpress.com. In summary, many **industry services at UPES are financed through partnerships or grants (making them low-cost or free to local industry)**, whereas structured educational programs and consultancies operate on a **fee or contract basis**, often tailored to the client's needs.

Notable Industry Partnerships and Case Studies (2020–2025)

- **Energy Efficiency for Small Industries (2020–22):** UPES contributed to a UNIDO-backed project to upgrade **energy efficiency in 1,800+ small steel re-rolling mills** across India and led training and audits for local *pulp & paper* mills in Uttarakhand

upes.ac.in upes.ac.in. These interventions helped local manufacturers save energy and improve processes, illustrating UPES's direct impact on industrial sustainability.

- **Sustainability Fair 2022 (Uttarakhand):** UPES's School of Engineering hosted a four-day fair in Oct 2022 to promote sustainable practices garhwalpost.in. The event gathered **regional industries, government bodies, and researchers** under one roof. It featured training sessions, industry-academia brainstorming conclaves, and exhibitions of green technologies garhwalpost.in garhwalpost.in. Funded by sponsors, this fair enabled local companies to learn about clean energy innovations and form collaborations at no cost.
- **EV Battery Tech Collaboration (2022):** In 2022, UPES partnered with **Ornate Solar Pvt. Ltd.** (a solar industry player) on a project to develop solid-state battery technology for electric vehicles. As part of this collaboration, UPES organized a workshop on advanced battery materials, involving Ornate Solar's experts and other industry representatives upes.ac.in upes.ac.in. This project served as a pilot for technology transfer in clean transportation.
- **Customized Training for Energy Sector (2023):** UPES has been delivering bespoke training to energy companies. In one instance, its faculty conducted a *technical induction program* for engineers of a regional power utility (covering power distribution, safety, and sustainable practices). Likewise, UPES experts have trained corporate teams – e.g. providing **EV and battery systems training to Tata Motors officials** to support the company's shift towards e-mobility upes.ac.in. These case studies show UPES functioning as a **continuing education partner** for industry.
- **Professional Programs in Clean Energy (2024):** To build capacity in the clean energy sector, UPES launched new academic-industry partnerships in 2024. Notably, **UPES Online & L&T EduTech** rolled out a 10-month Post-Graduate Program in *Renewable Energy* for working professionals, featuring content by industry experts and immersive industry projects financialexpress.com financialexpress.com. In the same year, UPES, together with Mahindra University and Aspire Impact, started an executive program to train "Impact Officers" in leading **Net-Zero and sustainability initiatives** within companies prnewswire.com prnewswire.com. These programs demonstrate UPES's commitment to upskilling the current workforce for India's clean energy transition.

Each of the above examples highlights how UPES is **directly engaging with local and regional industries to advance energy efficiency and clean energy**. Through consultancy and audits, joint research projects, training workshops, and academic-industry programs, UPES provides a range of services – some free or grant-funded, others commercial – that collectively help industries in its region become more **energy-efficient and sustainable** in the 2020–2025 period.